Emerging models of care: Stepped, stratified, or matched care

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Topical Review

PAIN®

Why wait to address high-risk cases of acute low back pain? A comparison of stepped, stratified, and matched care

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1. Introduction

Acute low back pain (LBP) is a prevalent and often short-lived pain condition, but it can linger or recur. For approximately 10% of people with acute LBP, it becomes chronic,[23] with modest treatment results[35] making LBP the most disabling health condition currently.[59] Accordingly, preventing acute LBP episodes from becoming chronic and disabling is a widespread public health priority.[10] In this article, we consider secondary prevention strategies for helping those with an acute LBP episode, whether a first episode, recurrence, or flare-up of a chronic problem.[25,32] In the past 25 years, 3 models for addressing this problem have been suggested (**Table 1**), but, surprisingly, their relative effectiveness has not been evaluated. Given the importance

with nonpharmacological interventions for acute and chronic pain,[6] from self-management[58] to implanted spinal cord stimulation.[29]

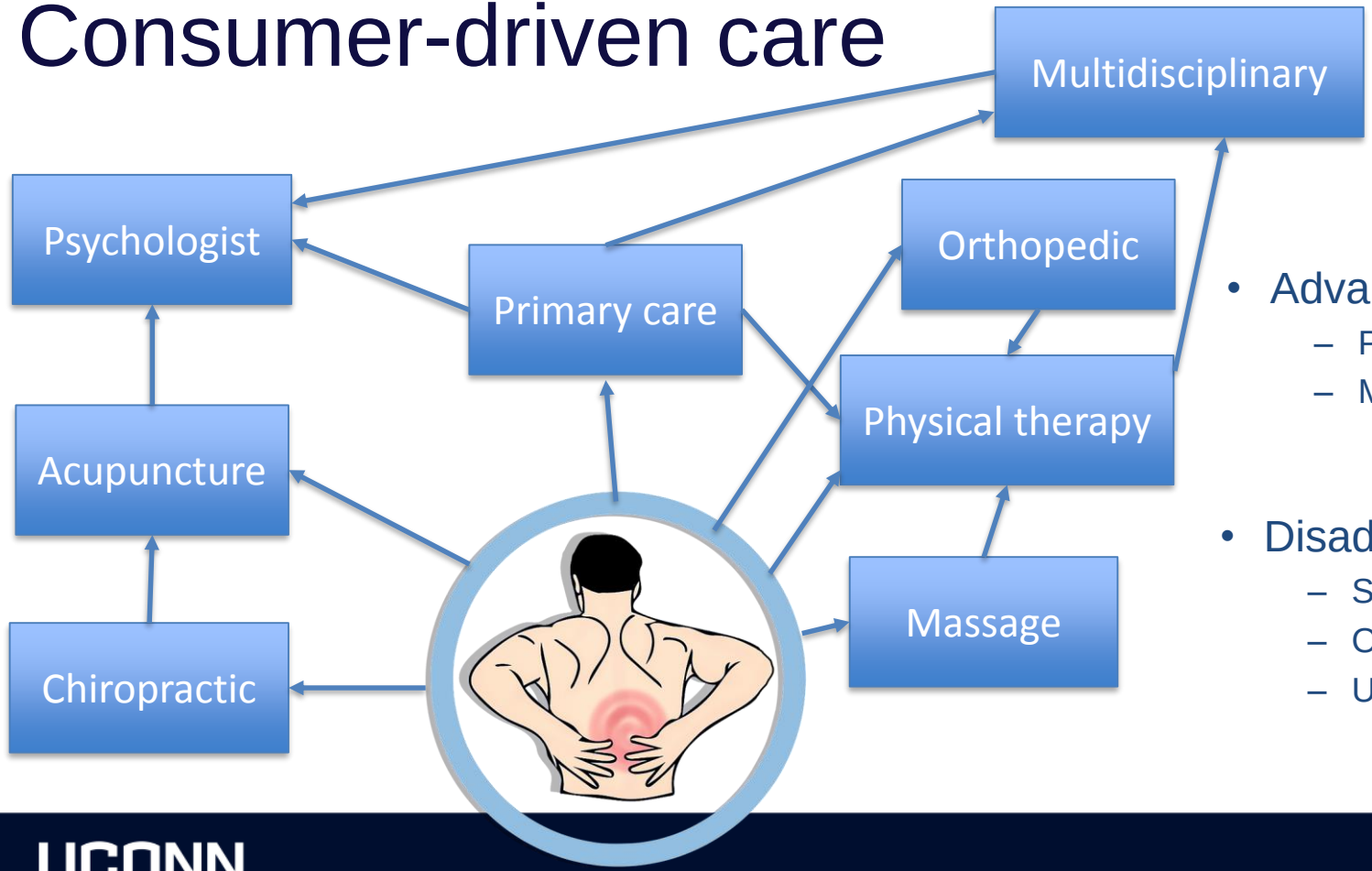
3. Underlying assumptions

This model assumes that most people with acute LBP will recover without trouble, whereas those who are likely to need more help will suffer no adverse consequences from waiting.

3.1. Advantages

The principal expected advantages are its relative ease of

Consumer-driven care



- Advantages
  - Patient-guided
  - Many available options
- Disadvantages
  - Social inequities
  - Outcomes unclear
  - Unnecessary risks, $

Stepped Care Model

an approach throughout healthcare

Higher risk, more invasive treatment, (higher cost)

Conservative care, low risk, (low cost)

Increasing symptom duration, severity, persistence, poor treatment efficacy

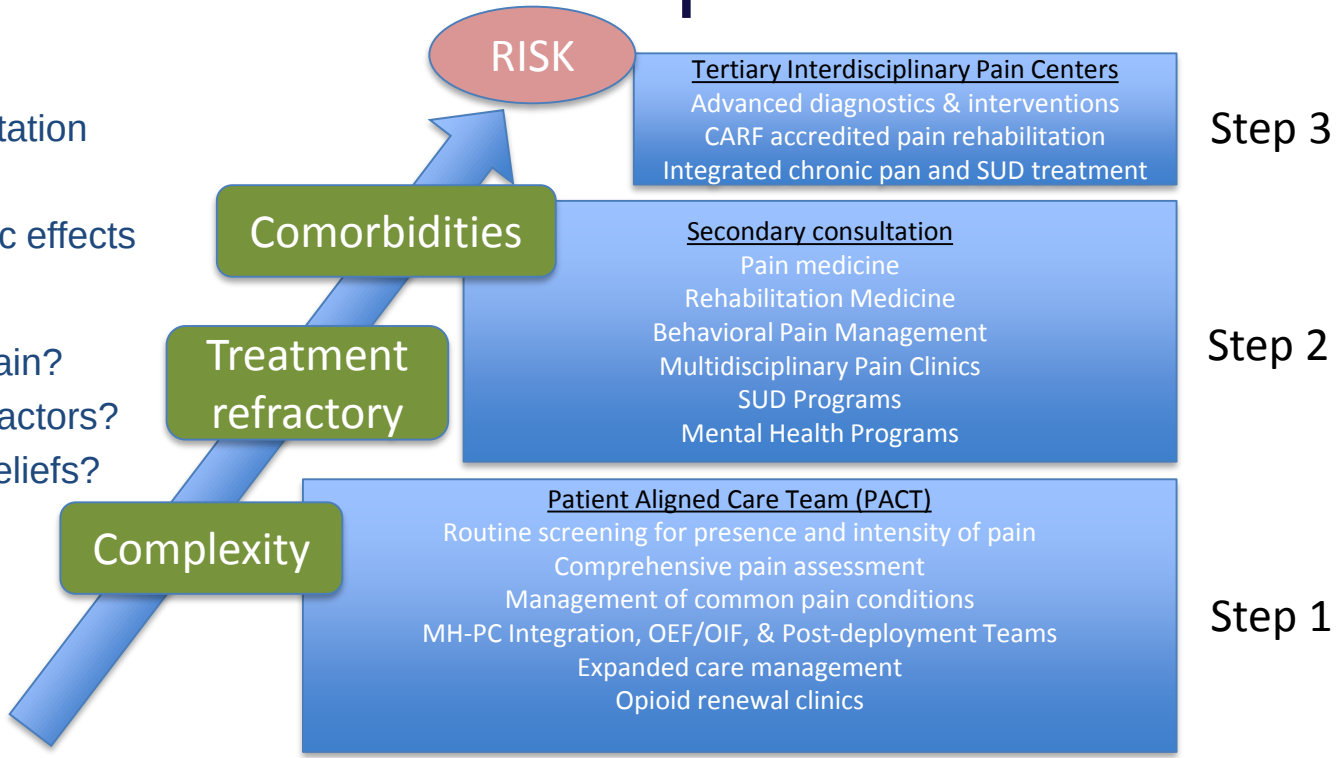
Stepped care in chronic pain treatment

Advantages

- Ease of implementation
- Limitation of costs
- Reduces iatrogenic effects

Disadvantages

- Acute/sub-acute pain?
- Ignores early risk factors?
- Entrenches pain beliefs?
- Lost opportunity?



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VA Stepped Pain Care: Kerns, Philip et al., TBM 2011;1:635-643.

Stratified care model

First presenters or new onset

Self-report questionnaire: Assess risk of chronicity, disability, poor outcome

Low risk → Conservative care only

Medium risk → More treatment

High risk → Most treatment

- Advantages
  - Ease of screening
  - Earlier intervention for high risk individuals
  - Prevents unnecessary treatment
- Disadvantages
  - What does it mean to be “high risk”?
  - Missed risk factors?
  - One size fits all?

STarTBack Trial: Stratified care for LBP

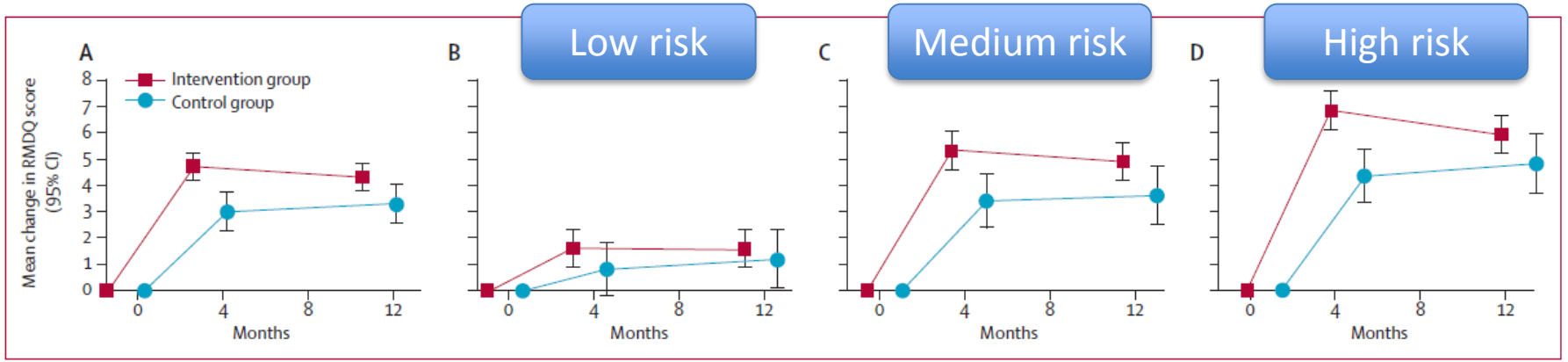

Figure 2: Mean change from baseline in RMDQ (primary outcome measure) scores at 4-month and 12-month follow-ups in all participants (A), low-risk participants (B), medium-risk participants (C), and high-risk participants (D)
RMDQ=Roland and Morris Disability Questionnaire.

- Effects identical across acute, subacute, and chronic LBP
- Better outcomes at lower overall cost

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Hill, Whitehurst, Lewis et al., Lancet 2011;378:1560-1571.

Matched care model

First presenters or new onset

Self-report questionnaire:
Broader assessment of risk factors

Low risk → Conservative care and reassurance

Risk Factor A → Treatment A

Risk Factor B → Treatment B

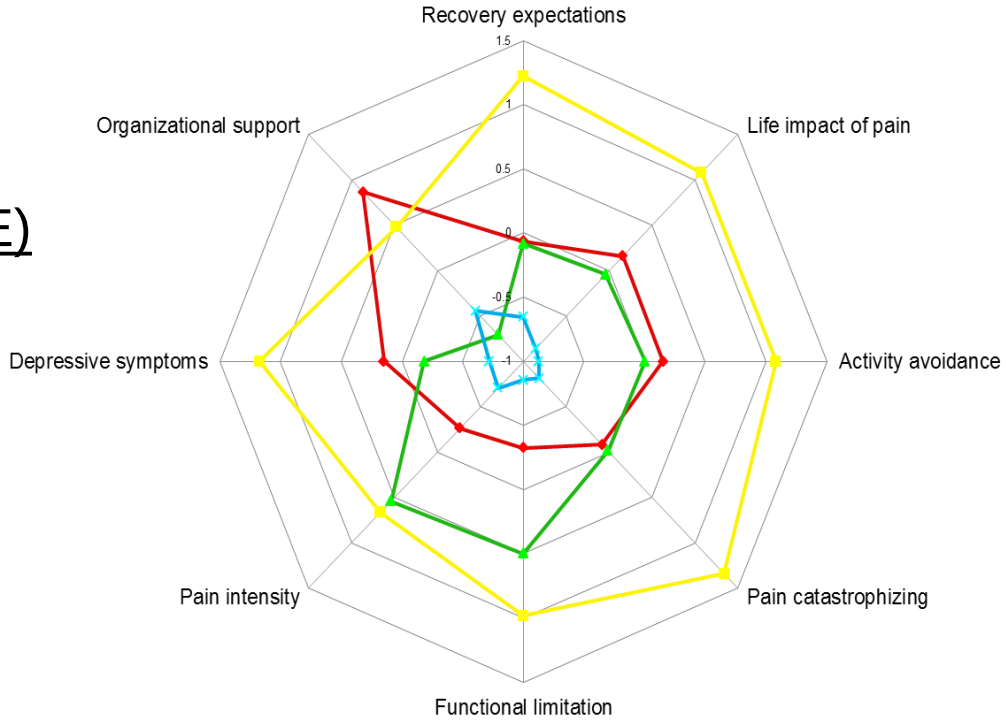
Risk Factor C → Treatment C

- Advantages
  - Care matched to needs
  - Patient-tailored
  - Consistent with clinical practice
- Disadvantages
  - Requires more resources
  - Accurate risk profiles?
  - Psychological focus predominant
  - Limited evidence so far

Measures to identify risk-based clusters:

Pain Recovery Inventory of Concerns & Expectations (PRICE)

- Cluster A: Low risk
- Cluster B: Workplace risk
- Cluster C: Pain/function risk
- Cluster D: Psychosocial risk



Shaw, Reme, Pransky et al., JOEM 2013;55(8):885-894.

Summary and next steps

- There are competing care coordination models for the optimal timing of pain management interventions.
- Nonpharmacological approaches might be more effective if offered earlier in the care continuum.

- Should nonpharmacological treatments in primary care be assigned based on risk severity?
- Should nonpharmacological treatments be assigned based on most prominent risk factors?